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ABSTRACT

This study investigated whether physical self-awareness and age are significant predictors of interpersonal problem-solving ability in young children. A total of 84 preschool and kindergarten children were administered the Preschool Interpersonal Problem Solving Test and the Body Awareness (Part I) microcomputer program. A backward-stepwise multiple regression analysis revealed that physical self-awareness and age jointly have predictive value as a measure of interpersonal problem-solving ability. It was concluded that an increase in age does not necessarily predict an increase in interpersonal problem-solving performance. It was also concluded that an increase in body awareness may predict an increase in interpersonal problem-solving performance. A three-page list of references is included. (Author/RH)

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Body Awareness and Age as Predictors of Interpersonal Problem Solving Performance

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Running head: PREDICTORS OF INTERPERSONAL PROBLEM SOLVING PERFORMANCE

Abstract

The purpose of the present study was to determine if physical self awareness and age are significant predictors of interpersonal problem solving ability in young children. Eighty-four preschool and kindergarten children were administered the Preschool Interpersonal Problem Solving Test and the Body Awareness (Part I) microcomputer program. A backward-stepwise multiple regression analysis revealed that physical self awareness and age jointly have predictive value as a measure of interpersonal problem solving ability. It was concluded that an increase in age does not necessarily predict an increase in interpersonal problem solving performance. It was also concluded that an increase in body awareness may predict an increase in interpersonal problem solving performance.

Body Awareness and Age as Predictors of Interpersonal Problem Solving Performance

Preventive education has its roots in the assessment of readiness skills in preschool and kindergarten children. A preventive approach to education implies that school curriculums should reflect the developmental needs of its students. So that children may claim the privilege of receiving an education based upon their individual needs, kindergarten screening programs have increased in emphasis and implementation. Presently, most public and private preschool and kindergarten curriculum plans include screening programs which examine young children's academic readiness (Anderson, Griffin, & Hunt, 1978; Barclay, 1983; Gullo, Clements, & Robertson, 1984).

A relatively new area of interest is the assessment of interpersonal problem solving ability in young children. This interest stems from research which suggested that proficiency in interpersonal problem solving contributes to positive social interactions which eventually influences children's academic achievement, peer relationships and self-esteem (Gesten, Flores de Apodaca, Rains,

Weissberg & Cowen, 1978; Gronland & Anderson, 1963; Ridley & Vaughn, 1982).

As pioneers in the study of interpersonal problem solving skills Shure and Spivack (1980) found two major implications of their research: (a) interpersonal problem solving involves the use of a set of skills beyond those skills which are measured by intelligence tests; and (b) interpersonal problem solving skills can be taught to young children and contribute to improved behavioral adjustment in the classroom.

A key challenge for educators is to implement appropriate interventions for young children who have been identified as having potential difficulties in interpersonal problem solving. Therefore, the focus of this study was to examine the theoretical support for designing interpersonal problem solving intervention programs which include a component on the study of physical self-awareness.

In many early education curriculums self-concept is addressed in teaching strategies which stress self-awareness. Self-awareness is usually taught as the acquisition of the knowledge of body part names, facial and body features, first and last name, and address. (Barbe, Milone, Lucas, & Humphrey, 1980; Eliason, & Jenkins, 1981; & Schickendanz, York, Stewart, & White, 1983). This educational application

is based on the theory that the child develops from a concrete self-awareness (as in the acquisition of knowledge of physical features) to a more abstract knowledge of self-awareness (as in the acquisition of social behaviors feelings, thoughts, and ethics).

Piaget theorized that the child develops from an egocentric, physical social environment in the sensorimotor period of development, to the acquisition of language, and then to preoperational thought. This development creates a thinking level of "oscillating between distorting egocentricity and passive acceptance of intellectual suggestions..." (Piaget, 1976 p.162). Socialization is egocentrically concrete in nature and not yet totally abstractly formulated into intellectual thought.

In examining the progression of the development of a child's self-concept, Keller, LeRoy, Ford, and Meachum (1978) found that the physical sense of the self develops early in life when subjects with the ages of three, four, and five years responded to several self-concept tasks. The responses indicated high frequencies of references to action and body image.

Research conducted by Mohr (1978) tested the development of a child's sense of personal identity. The findings of this study support the hypothesis that self-awareness developmentally progresses from an

external (or physical) basis to a more internal (or abstractly intellectualized) basis.

The review of the literature would support that the development of physical self-awareness is a vital prerequisite for the development of social cognition, which involves understanding of one's and other's social behaviors. Accordingly, the purpose of this study was to examine physical self-awareness knowledge and age as predictors of interpersonal problem solving performance.

Method

Subjects

The sample consisted of 84 preschool students from a university laboratory school. There were 41 nursery school students; 18 males and 23 females with ages ranging from 56 to 73 months. There were 43 kindergarten students; 16 males and 27 females with ages ranging from 66 to 78 months.

Procedure

The Preschool Interpersonal Problem Solving (PIPS) Test (Shure and Spivack, 1974) was used as an assessment of interpersonal problem solving ability. The test-retest reliability coefficient was reported to be .72 (Shure and & Spivack, 1974). Validity of the PIPS Test was based upon data which demonstrated that PIPS scores differentiated preschool and kindergarten

children in terms of behavioral adjustment, socio-economic status, and changes in behavioral adjustment as a result of training (Shure & Spivack, 1974). The PIPS was designed to measure the degree to which children can generate alternative solutions to interpersonal conflict situations involving peers and mothers. Individually administered, each situation was explained to the child through the use of pictures of children, toys, and mothers. In each problem situation the child was asked what he or she would do or say to solve the problem. If seven different, relevant peer solutions were given, additional questions were asked until the child could no longer give a new solution. A minimum of five mother questions were asked, to which, if answered correctly, additional questions were given until new and relevant solutions ceased. For the purposes of this study, total scores on the PIPS test consisted of the total number of different, relevant solutions given for the peer and mother situations. The PIPS scoring manual outlines the criteria for determining relevant solutions (Shure & Spivack, 1974).

In order to determine physical self-awareness knowledge, performance on a microcomputer program which presented information about body part names and placement was measured. All the subjects participated in a small group experience in which they answered

questions about the information presented in Part I of the microcomputer program Body Awareness (Methods and Solutions, 1983). Each subject was asked to state the name of a picture of a body part and then agree or disagree if it was placed on the body correctly. The same ten displayed pictures included the body parts of one foot, three hands, four arms, and two legs for each subject. A frequency mark was tallied each time the subject stated the name of the pictured body part correctly and then again if the subject correctly agreed or disagreed as to the correctness of the body part placement onto the picture. The total maximum score per subject was twenty.

After the age of each subject was recorded, the raw scores of performance on the microcomputer body awareness experience (BA) and the age (AGE) of each subject were correlated with the raw scores of each subject's interpersonal problem solving (ITPS) performance as measured by the PIPS.

Results and Discussion

Table 1 presents the correlations and t values of predictors BA, AGE, and SEX on the variable ITPS. The correlations were computed by a backward-stepwise multiple regression analysis which controlled possible confounding effects of gender (SEX). The multiple regression analysis determined that the predictors BA,

AGE, and SEX, were together statistically significantly correlated to the ITPS variable, r = .29, p .Ø1, but only the variables of BA, t = 2.Ø7, p .Ø5, and AGE, t = -2.27, p .Ø5, had statistically significant t scores. SEX, t = .42 was not significantly correlated to ITPS. Step 2 of this backward stepwise regression analysis revealed that when BA and AGE were jointly analyzed without SEX the correlation was still significant, r = .29, p .Ø1, with BA and AGE having significant t scores of t = 2.11, p .Ø5, and t = -2.31, p .Ø5. Step 3 of this regression analysis revealed that the correlation of BA alone with ITPS was not statistically significant r = .15 and BA, t = 1.37 was not statistically significant. The positive correlations of BA with ITPS and the negative correlations of AGE with ITPS, were not statistically significant correlations by themselves but when analyzed together, even with the effects of SEX, they were found to be statistically significantly correlated with ITPS.

The results of the present study indicate that physical self awareness in conjunction with age, has predictive value as a measure of interpersonal problem solving ability. Current programs designed for increasing the interpersonal problem solving ability of young children seem to limit its focus to skill

training with an emphasis on teaching children how to think (Spivack & Shure, 1974). The expansion of a program to include a component on the study of physical self awareness is a concept worthy of further investigation.

It was surprising that the younger children with high physical self awareness also reported higher correlations with the interpersonal problem solving measure. It was noted during the data collection procedure that the younger children seemed to be more spontaneous, viewing the experience as a game. Where as, seemingly more sensitive to the traditional environment of a classroom setting, the older children appeared to be more concerned about getting the right answer. This suggests that interventions for physical self awareness and interpersonal problem solving might be enhanced if activities were presented so that intuitiveness and creativity were encouraged.

A final consideration on the relevance of the present study concerns the population that was used for the study. A substantial amount of previous research on interpersonal problem solving ability of young children has been reported on inner city, lower socio economic, black children. In the present study 98% of the subjects were from the middle and upper socio-economic levels and from a small town

environment. Clearly, continued research with different populations is needed to expand and clarify the importance of assessing and training for interpersonal problem solving ability in young children.

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Table I

Body Awareness, Age, and Sex as Predictors of Interpersonal Problem Solving Scores: A Backward Stepwise Regression Analysis

	(t statistics)			
Step	BA	AGE	SEX	R
1	*2.07	*-2.27	.42	**.29
2	*2.11	*-2.31	n.i.	**.29
3	1.37	n.i.	n.i.	.15

* p = .05
** p = .01
n.i. = not included